

**R E M A R K S**

The Office Action of January 10, 2008, has been received and carefully reviewed.

Applicants have amended claim 1 by insertion of a Markush group directed to the gelling agent of liquid B. In Applicants' amended claim 1 the gelling agent is selected from the group consisting of plasticizers, high-boiling solvents, organic solvents and monomers of thermoplastic resins.

In view of Applicants' amended claim 1, Applicants have cancelled claim 3 as redundant. No new matter has been added by these amendments.

Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-3, and 12 under 35 U.S.C. § 102(b), as anticipated by USP 3,772,237 to Bullman. According to the Examiner, Bullman discloses a vinyl paste sealant which can encompass polyvinyl chloride plastisols, plastigels, organosols, and organogels. The Examiner alleges that one can convert a plastisol to an

organosol, a plastigel, or an organogel, by addition of conventional volatile liquids known in the art to effect such a conversion. Finally, the Examiner argues that the composition taught by Bullman can be considered a "two pack" composition because a gelling agent can be added to the plastisol mixture and one would consider the gelling agent as essentially "one pack" and the remaining ingredients as the "second pack". Applicants respectfully traverse this rejection.

Bullman teaches a singular sealant composition comprising a finely divided vinyl chloride dispersion resin, a vinyl chloride blending resin, a ketone-formaldehyde resin, an alkaline earth metal carbonate or sulfate, a plasticizer and a silane adhesion promoter. Bullman also describes the addition of a gelling agent to this sealant composition. However, Bullman specifically exemplifies only organophilic bentonite, silica aerogels and asbestos (column, 7, lines 8-10) as gelling agents in the mixture. These gelling agents are not liquid gelling agents which swell and gel a thermoplastic resin, as in Applicants' claimed invention. One of ordinary skill in the art would consider the gelling agents of Bullman to be different from the gelling agents used by Applicants in the

present invention, that is, "plasticizers, high-boiling solvents, organic solvents and monomers of thermoplastic resins". Applicants have amended claim 1 to further clarify this feature.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). In view of Applicants' claim amendments, Applicants respectfully request withdrawal of this rejection.

At page 4 of the Office Action, the Examiner discusses a possible embodiment of Bullman wherein a plastigel could be formed by addition of a gelling agent to the plastisol. The Examiner then argues that this

hypothetical embodiment is essentially "two packs", one with the plastisol and one with the gelling agent. Applicants submit that this rejection is either an improper anticipation rejection, or otherwise an obviousness rejection based on hindsight.

As stated in the cases cited above, an anticipation rejection can only be made when the elements of the reference are identical and arranged as required by the claim. The hypothetical embodiment of Bullman discussed by the Examiner, is a plastisol mixture wherein a gelling agent may be added to the total mixture to form a plastigel composition. However, Bullman does not explicitly teach or claim a "two-pack curable composition".

In contrast, Applicants' claims are directed to a two component curable composition, wherein a thermoplastic resin and plasticizer explicitly comprise the first component, and a gelling agent explicitly comprises the second component, and both components are then mixed right before application. As such, Bullman does not teach all of Applicants' claimed features in the arrangement required by Applicants' claims and therefore cannot be said anticipate Applicants' claims.

Considering the Examiner's remarks as an obviousness rejection, it is clear that what the Examiner has done is to use Applicants' claimed invention as a guide to selectively group elements of the reference to match Applicants' claims. There is absolutely no teaching in Bullman that the mixture of components could be made to be into a two-pack system, or any teaching that the components should be grouped in the manner claimed by Applicants. Furthermore, the Examiner has presented no line of reasoning as to why one of skill in the art, when reviewing the art, would have found it obvious to selectively pick and choose the various elements and/or concepts of Bullman to arrive at the present invention. In the present Office Action, the Examiner has only cited references that show elements of the claimed invention in one or more combinations without addressing the suggestion or motivation in the art to do so. See *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

Accordingly, Bullman does not teach each and every element of Applicants' claims 1-3 and 12, and therefore the claims cannot be considered to be anticipated, or rendered obvious by Bullman. Applicants

respectfully request withdrawal of this rejection.

The Examiner has rejected claims 10 and 11 under 35 U.S.C. § 102(b), as anticipated by USP 3,772,237 to Bullman. The Examiner admits that Bullman is silent with respect to gelling time or sprayable viscosity. The Examiner contends that Bullman is essentially the same composition as Applicants' claimed invention, and therefore it would be expected to have the same properties as Applicants' claimed invention, absent Applicants submitting evidence of unexpected results. Applicants traverse this rejection.

As Applicants have stated with regard to the previous rejection, Applicants claimed gelling agents are selected from the group consisting of plasticizers, high-boiling solvents, organic solvents and monomers of thermoplastic resins. Moreover, Bullman does not teach a two-pack composition as claimed by Applicants. Therefore, Bullman does not teach each and every element of Applicants' claims 10 and 11, and as such, the claims cannot be considered to be anticipated by Bullman. Applicants respectfully request withdrawal of this rejection.

Rejections under 35 U.S.C. §103(a)

The Examiner rejected claims 1-3 and 10-12, as obvious under 35 U.S.C. §103(a) over USP 4,386,992 to Takegawa et al. The Examiner alleges that Takegawa et al. disclose a two-part adhesive composition comprising an aqueous emulsion adhesive and a gelling agent. The adhesives include polyacrylates, PVC and other aqueous polymers. The Examiner admits that Takegawa et al. fail to disclose a two-pack composition comprising Applicants' claimed non-aqueous resin and is silent with respect to gelation at room temperature. However, the Examiner alleges that because Takegawa et al. teach polyacrylates which are "generic to core-shell and gradient resins", it would have been obvious to use the resins of Applicants in the two-pack curable composition of Takegawa et al. Applicants respectfully traverse this rejection.

Takegawa et al. teach a two-pack adhesive composition comprising an aqueous synthetic resin emulsion adhesive and a gelling agent selected from the group consisting of calcium pantothenate, glycine calcium salt, alanine calcium salt, serine calcium salt, threonine calcium salt, methionine calcium salt, phenylalanine

calcium salt, and calcium aspartate.

The adhesive of Takegawa et al. is an aqueous emulsion adhesive. Aqueous emulsion adhesives are known generally in the automobile manufacturing industry to have the following disadvantageous properties:

1) The aqueous emulsion adhesive has no resistance to showering in a gel state. Takegawa et al. are silent on the resistance to showering of their aqueous emulsion adhesive.

2) The aqueous emulsion adhesive causes rusting of metals, and thus it cannot be used in many parts of an automobile manufacturing line.

3) The high temperatures encountered during the coating step would cause the generation of steam, which would form bubbles or blisters in the seals and coatings.

4) The required properties of Applicants' claimed invention, such as elongation cannot be attained.

5) Aqueous emulsions have poor adhesion to oil treated steel plate, as required by Applicants' invention.



In contrast, the two-pack curable composition of the present invention is a non-aqueous one, as evident from Applicants' Examples, which disclose various organic solvents used to dissolve the components of the thermoplastic resins and plasticizers. Furthermore, none of Applicants' Examples teach or suggest the use of water soluble polymers.

Applicants submit that the Examiner has not made a proper *prima facie* obviousness rejection, because the Examiner has not answered the following question: Why one of ordinary skill in the art, when looking to improve the sealing of automobile body parts by providing a composition which can be mixed and sprayed onto oil coated steel parts prior to body welding, followed by a showering step and a coating step, such that the sealer is cured in the coating oven, instead of in an addition sealing step, would have been motivated to look at the teachings of Takegawa et al? The compositions of Takegawa et al. cannot be used as a seam sealing composition claimed by Applicants, due to the problems caused by their inherent physical properties (i.e. rust, steam, poor adhesion, etc). Moreover, no person of ordinary skill in the art would have had any reasonable

expectation that the aqueous polymers taught in Takegawa et al. could be successfully used in the manner claimed by Applicants. As such, Applicants submit that Takegawa et al. cannot render Applicants' claims obvious, and respectfully request withdrawal of this rejection.

The Examiner also rejected claims 7-8 and 13-16, under 35 U.S.C. §103(a), as obvious over Takegawa et al. in view of USP 5,166,229 to Nakano et al. According to the Examiner, Takegawa et al. is silent with respect to thermosetting epoxy resins, latent curing agents and viscosity, as well as the use of Takegawa et al. compounds in the spot/body welding step of an automobile assembly line. Nakano et al. is offered for teaching that epoxy resins are widely used as adhesives or paint coatings because of their adhesion to various materials. Such epoxies are incorporated with latent curing agents, and have a viscosity of not less than 500 poises. The Examiner alleges that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to add thermosetting epoxy resins to the adhesive composition of Takegawa et al. for the above advantages, and that one would have had a reasonable expectation of success. Applicants traverse this rejection.

As Applicants have stated above with regard to the previous rejection, the compositions of Takegawa et al. cannot be used as a seam sealer as claimed by Applicants due to the problems caused by their inherent physical properties (i.e. rust, steam, poor adhesion, etc). Moreover, no person of ordinary skill in the art would have had any reasonable expectation that the aqueous polymers taught in Takegawa et al. could be successfully used in the manner claimed by Applicants. These limitations are not cured by the addition of Nakano et al.

Nakano et al. teach epoxy resins. Such resins are not water soluble. "The Examiner may not combine references in the art "unless the prior art suggested the desirability of [such a] modification or replacement". *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Applicants submit that one of ordinary skill in the coatings art, at the time the invention was made, would have known that epoxy resins would not have been suitable to combine with an aqueous polymer resin, as taught in Takegawa et al., because the epoxy resin would not have been soluble in the aqueous polymer resins. As such, a person of ordinary skill would not have had any

motivation to combine the teachings of Takegawa et al. with Nakano et al., with any reasonable expectation of success. Accordingly, the combination of Takegawa et al. in view of Nakano et al. cannot render Applicants' claims *prima facie* obvious, and Applicants respectfully request withdrawal of this rejection.

Finally, the Examiner rejected claims 7-8 and 13-16 under 35 U.S.C. §103(a) as obvious over Bullman, in view of Nakano et al. According to the Examiner, Bullman teaches the composition of Applicants, however, Bullman is silent with respect to thermosetting epoxy resins, latent curing agents and viscosity, as well as the use of the compounds of Bullman in the spot/body welding step of an automobile assembly line. Nakano et al. is offered for teaching that epoxy resins are widely used as adhesives or paint coatings because of their adhesion to various materials. Such epoxies are incorporated with latent curing agents, and have a viscosity of not less than 500 poises. The Examiner alleges that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to add thermosetting epoxy resins to the composition of Bullman for the above advantages, and that one would have had a reasonable expectation of

success. Applicants traverse this rejection.

As Applicants have stated with regard to Bullman in the anticipation rejection, Applicants claimed gelling agents are selected from the group consisting of plasticizers, high-boiling solvents, organic solvents and monomers of thermoplastic resins, which are not disclosed in Bullman. Moreover, Bullman does not teach a two-pack composition as claimed by Applicants.

As stated above, Nakano et al. teach epoxy resins, but do not teach the non-aqueous plastisol composition, plasticizers, or gelling agents claimed by Applicants. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness with regard to Applicants' claims because the combination of Bullman, in view of Nakano et al., does not teach each and every element of the claimed invention. Applicants respectfully request withdrawal of this rejection.

Atty. Docket No.: P71118US0  
Application No.: 10/568,072

With this amendment and the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any questions or comments, the Examiner is cordially invited to telephone the undersigned attorney.

Respectfully submitted,  
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Date: April 8, 2008  
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